

A

MUSCLE-N
m MGGQITRNTHD-----SIGGSFPVPS-----HRCCHKQKHCPPTLSG-----

BRAIN-N
m NGNNFSSVSSLQRGNPSRASRG---HPQNLKE-----SIGGSFPVPS-----HRCCHKQKHCPPTLSG----- 55
r NGNNFSSVSSLQRGNPSRASRG---HPQNLKD-----SIGGSFPVPS-----HRCCHKQKHCPPTLSG----- 55
h NGNNFSSVSSLQRGNPSRASRG---HPQNLKE-----SIGGSFPVPS-----HRCCHKQKHCPPTLSG----- 55
d MGLSDIPANYMQGSHPHLTLPQQQHONQOHLQHLQMQQLHNAMPTAQQAQVLA NESNELL MSTKDKLSSKMKMLLKKIKKRFGL 90

NLS1
m -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
r -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
h -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
d VRRSPSSCPGPNNLPLLCFH-SVHGDNIRISRDGTLARRFESFCRAITFSARPVRINERICVRFPAEISNNWNGGIRFGFTSNDP-VTLEG 178

NLS2
m -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
r -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
h -----GGLPATPLLFPHPTKGSQILMDLSHKAVKQASFCNAITFSNRPLVIMQVRLNITKHQCCNSGALRLGFTSKDPSRIHPD 136
d VRRSPSSCPGPNNLPLLCFH-SVHGDNIRISRDGTLARRFESFCRAITFSARPVRINERICVRFPAEISNNWNGGIRFGFTSNDP-VTLEG 178

NHR1
m SLPKYACPDIVSOSGFWAKALPEEFANEENIAFWVDKKSRVFYRINESAAMLFSSGVRTVDPLWALVDVYGLTRGVQLLDS----- 218
r SLPKYACPDIVSOSGFWAKALPEEFANEENIAFWVDKKSRVFYRINESAAMLFSSGVRTVDPLWALVDVYGLTRGVQLLDS----- 218
h SLPKYACPDIVSOSGFWAKALPEEFANEENIAFWVDKKSRVFYRINESAAMLFSSGVRTVDPLWALVDVYGLTRGVQLLDS----- 218
d TLPKYACPDITNRPCEFWAKALPEEFANEENIAFWVDKKSRVFYRINESAAMLFSSGVRTVDPLWALVDVYGLTRGVQLLDS----- 268

LRS1 *
m ELVLFDCLRPSFTALRRSLRCEADE-----ARLSVSLCDLNVFGADGDDGAPPAG--CPIPNLSLNSQHSRALP-A 288
r ELVLFDCLRPSFTALRRSLRCEADE-----ARLSVSLCDLNVFGADGDDGAPPAG--CPIPNLSLNSQHSRALP-A 288
h ELVLFDCLRPSFTALRRSLRCEADE-----ARLSVSLCDLNVFGADGDDGAPPAG--CPIPNLSLNSQHSRALP-A 288
d PAAIEMATVBAQQQMPQBAANASSALNSHHPHQSSRRSLPGHTAIEHDLERHVMPSLQSLHLAGNGGSVASVEAAIAHDLANGLPL 358

NHR2
m QLDG-----DLRFHALRAGAHVRILDEQTVARLEHGRDERALVFTSRPVSAETIFIKVTRSGGGRAGALSFGVTCDFGTLRFADLFS 373
r QLDG-----DLRFHALRAGAHVRILDEQTVARLEHGRDERALVFTSRPVSAETIFIKVTRSGGGRAGALSFGVTCDFGTLRFADLFS 373
h QLDG-----DLRFHALRAGAHVRILDEQTVARLEHGRDERALVFTSRPVSAETIFIKVTRSGGGRAGALSFGVTCDFGTLRFADLFS 373
d RYNANGRLIPVPHNT-KGRNVLSQDRFVASRTESDFCQGYVETARPTRIGELIVCVLKTEQMYVGALALGLSCNPAMLCENDLEND 447

LRS2 *
m PEALVDRKSEFWAFCR-VPGPLHSGLDILGLVYNADGELHLHSHNGAAGMQLCVDASQPLWMLFSLHCAITQVRIIGSTIMTERGG----- 457
r PEALVDRKSEFWAFCR-VPGPLHSGLDILGLVYNADGELHLHSHNGAAGMQLCVDASQPLWMLFSLHCAITQVRIIGSTIMTERGG----- 457
h PEALVDRKSEFWAFCR-VPGPLHSGLDILGLVYNADGELHLHSHNGAAGMQLCVDASQPLWMLFSLHCAITQVRIIGSTIMTERGG----- 457
d SDFLLDRPPEYVWVSKDIAAAPQRGDIAFFVAPNGEVSISKNNGFVVVMHVDQSLQWAFLDVYGSTQSLRMRQQLPNMVAYSQPV 537

SP1
m ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
r ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
h ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
d NVNAGSSSACNAASTSRMLPMTESMSLNAGATAKLLHHPQSLSVAQSTSLASAGGVNGSRMISMPSNGDILQIQPNNGGCTVLVVNLFP 627

SP2
m ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
r ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
h ---SLPCSFASTPTSPSALGIRL-SD-----PLSLTCGSGPLGGSAGG-----TAPNSPVSLPESPVTPLGQWSD--- 519
d NVNAGSSSACNAASTSRMLPMTESMSLNAGATAKLLHHPQSLSVAQSTSLASAGGVNGSRMISMPSNGDILQIQPNNGGCTVLVVNLFP 627

RZD
m HMCLCYSCGLRLKKALH-ACCPICRRPIKDIKTYRSS 574
r HMCLCYSCGLRLKKALH-ACCPICRRPIKDIKTYRSS 574
h HMCLCYSCGLRLKKALH-ACCPICRRPIKDIKTYRSS 574
d HMCMCYDCAIEQWRGVGGGQCPICRAVIRDVIRRTT- 754

B

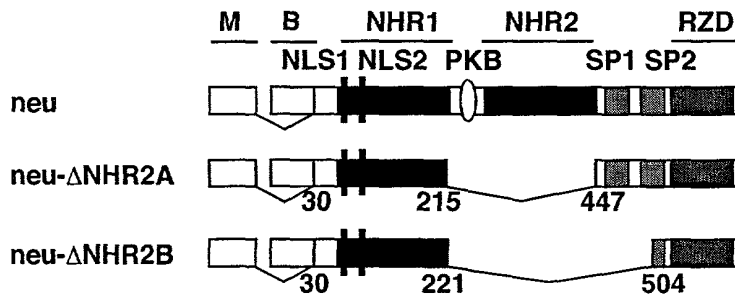
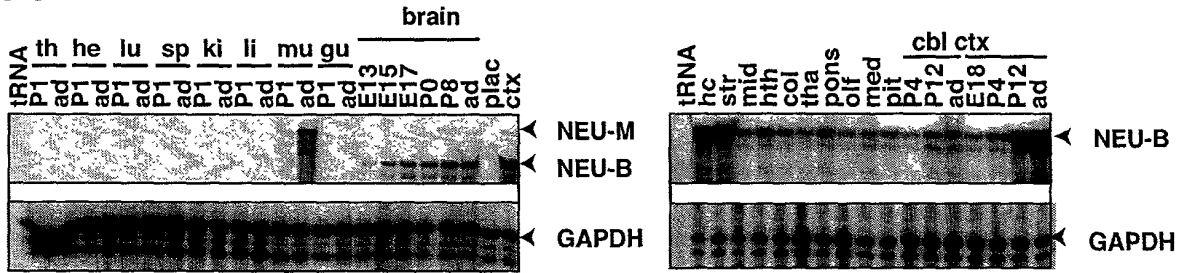


FIGURE 1

A



B

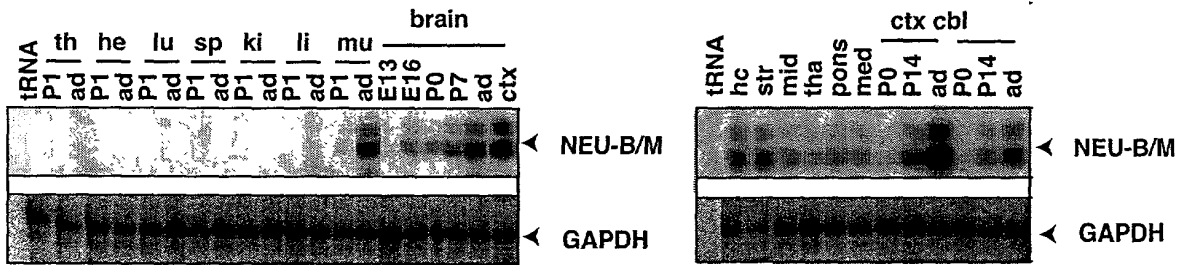


FIGURE 2

E17

Th PTec SC

Cx IC Cb

BG Me

Pit P

P7

Hc

Cx

BG

Am

AD

Cx

Hc

Th

Cb

BG

Am

Pn

FIGURE 3

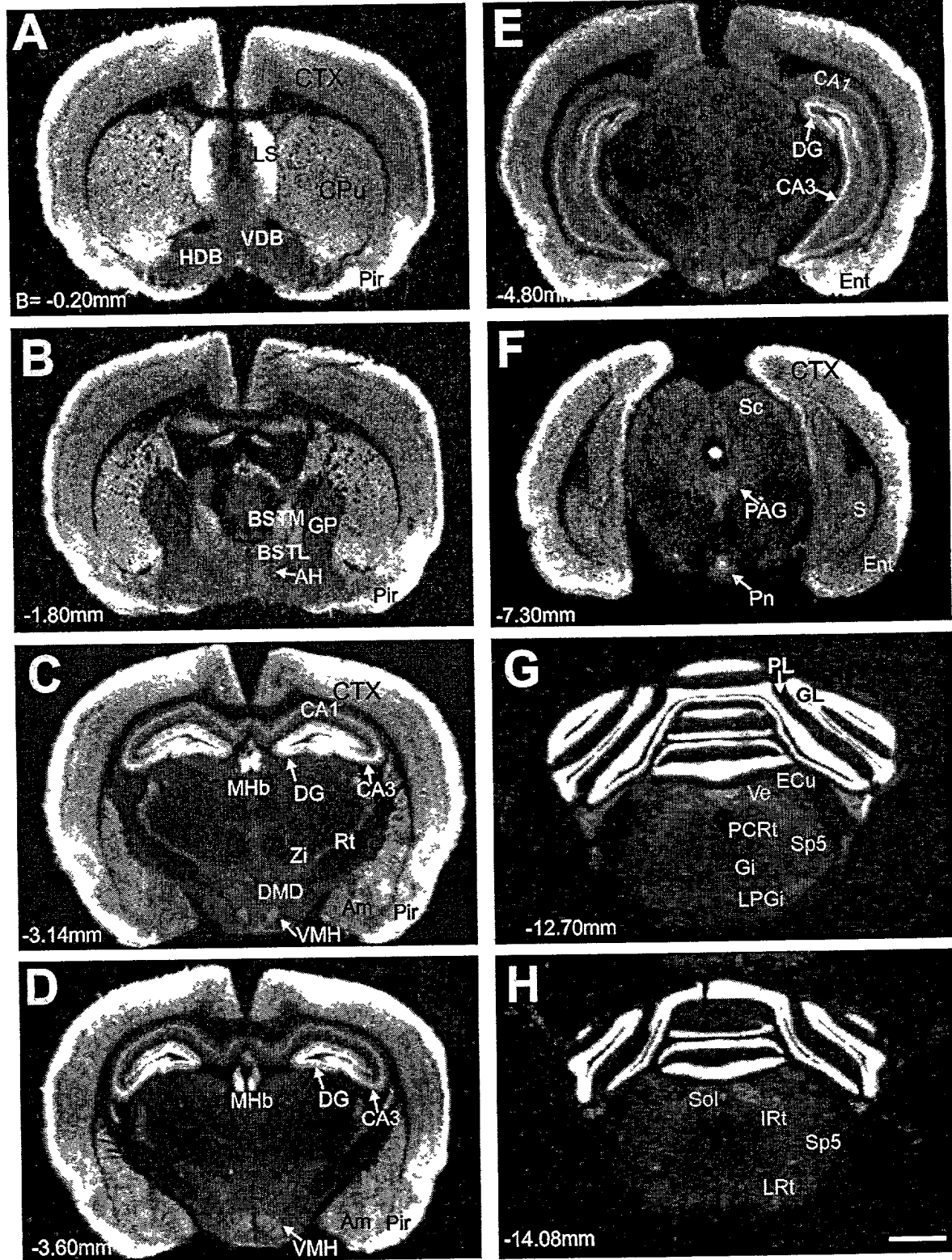


FIGURE 4

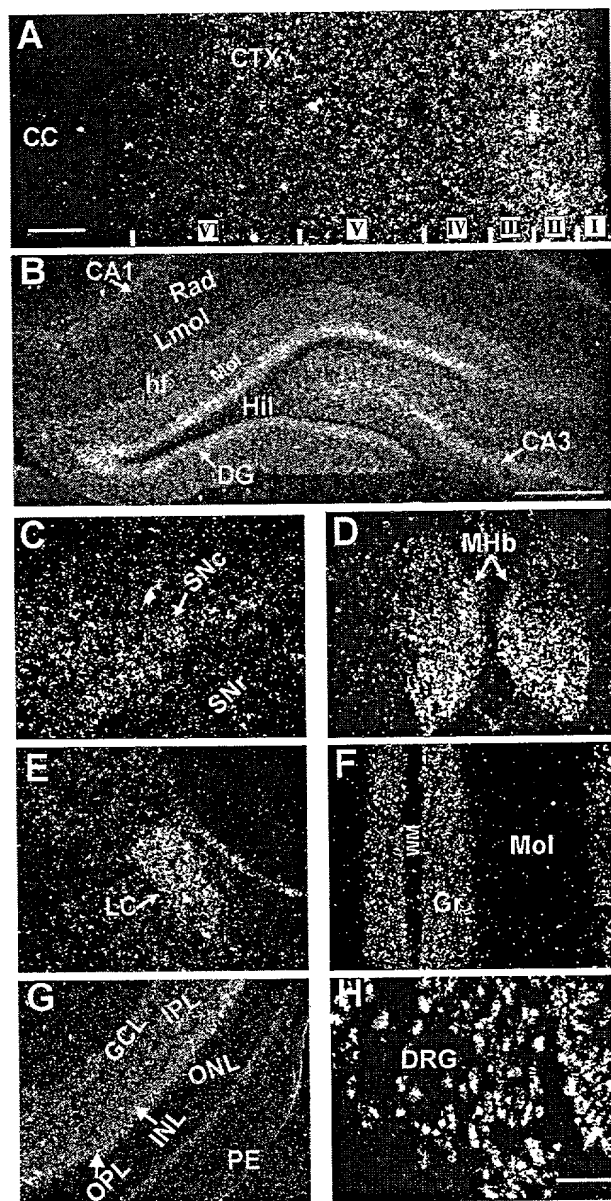


FIGURE 5

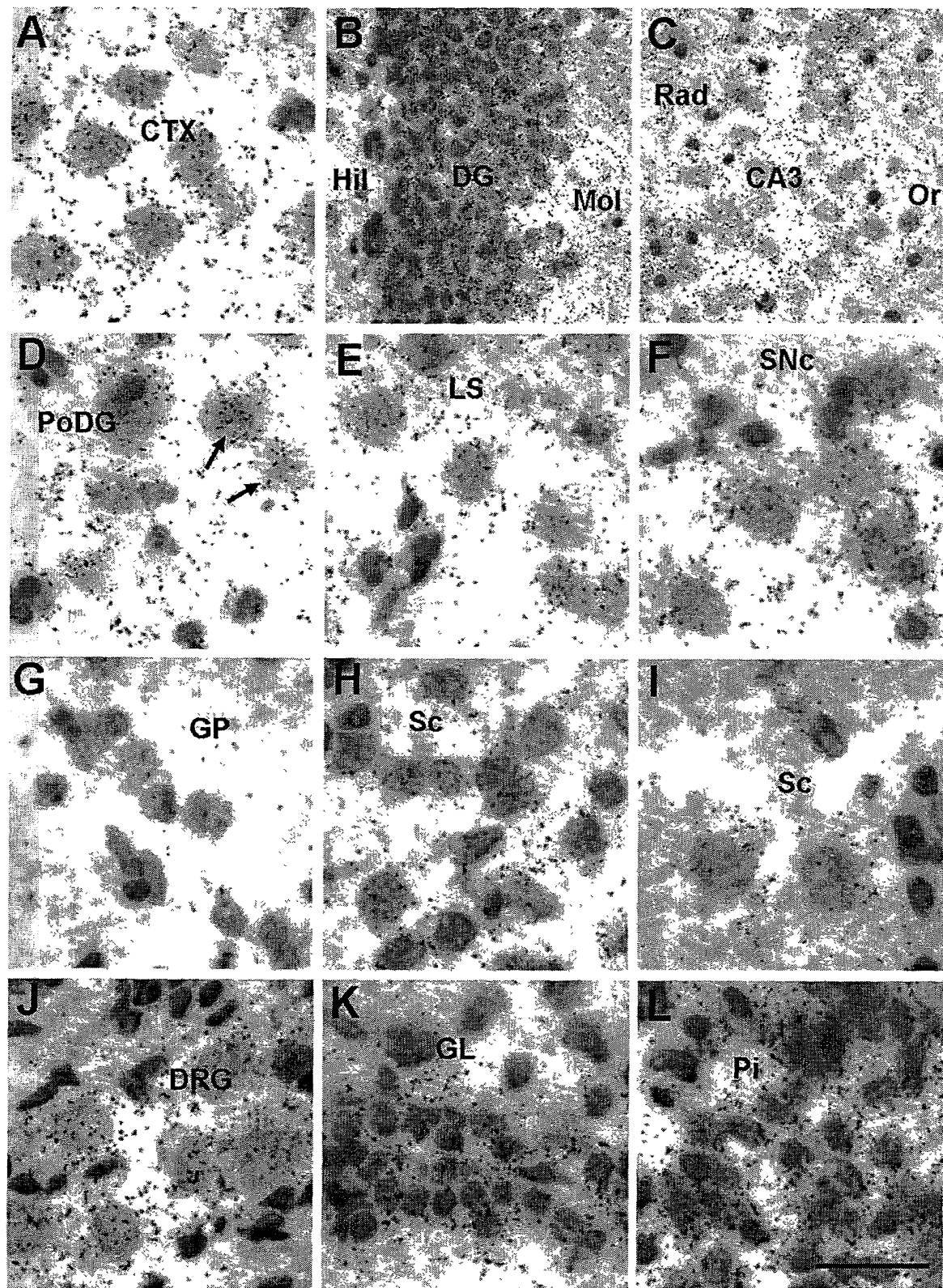


FIGURE 6

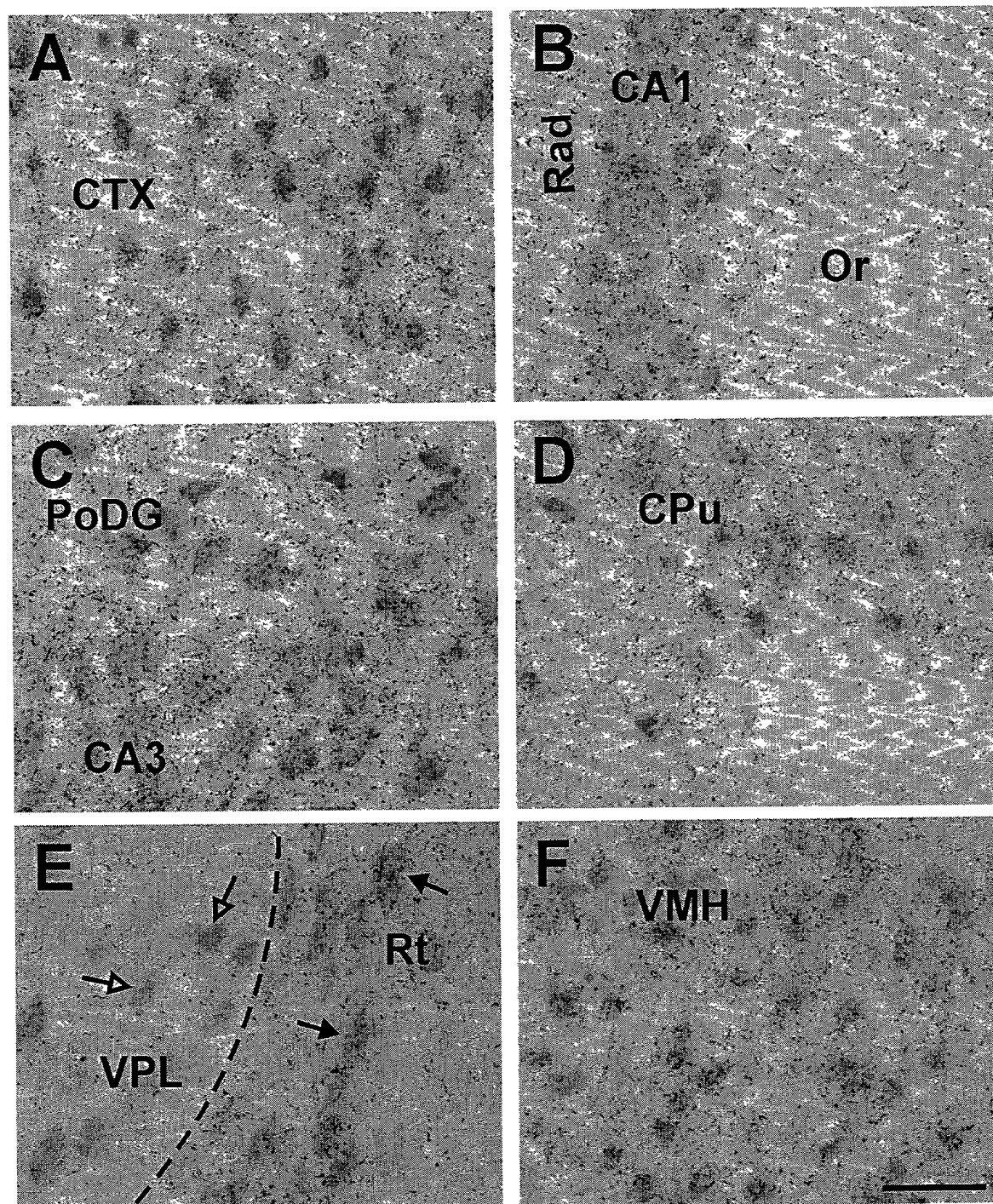


FIGURE 7

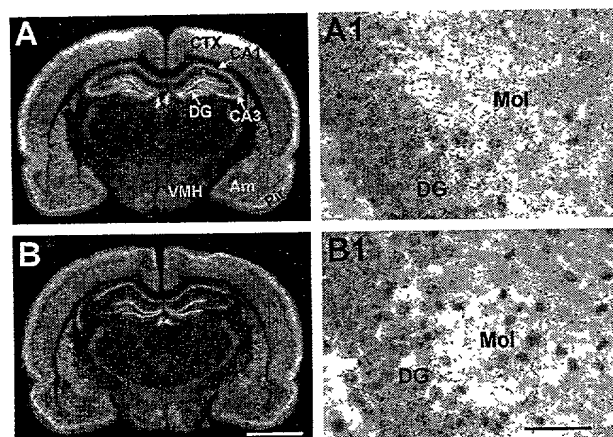


FIGURE 8

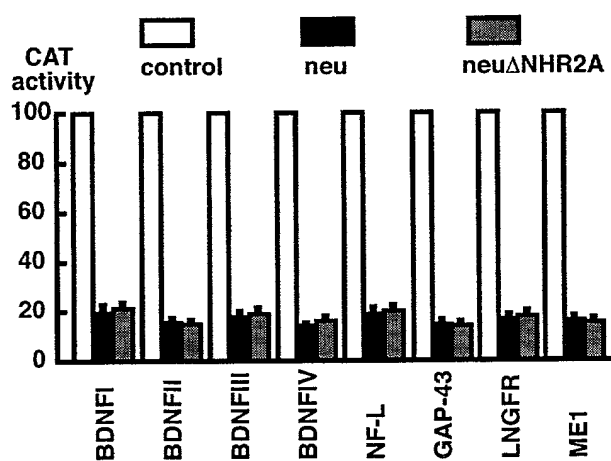


FIGURE 9

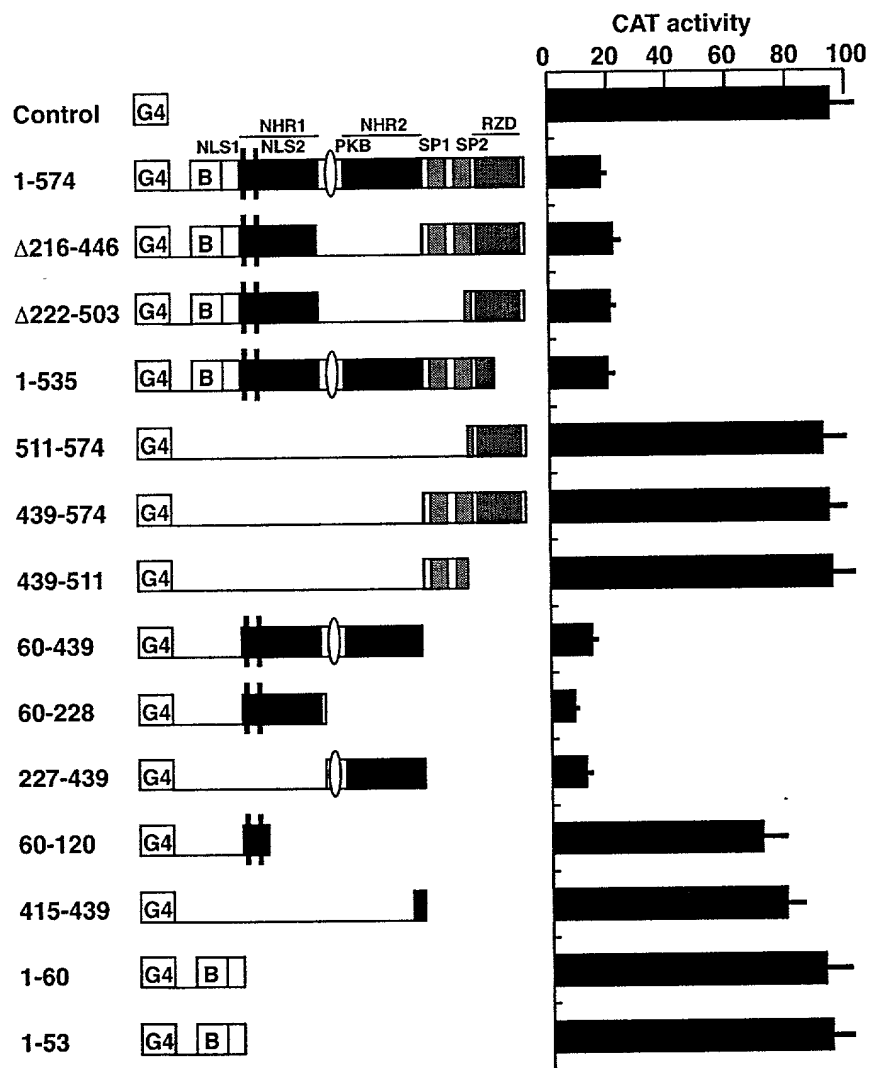


FIGURE 10

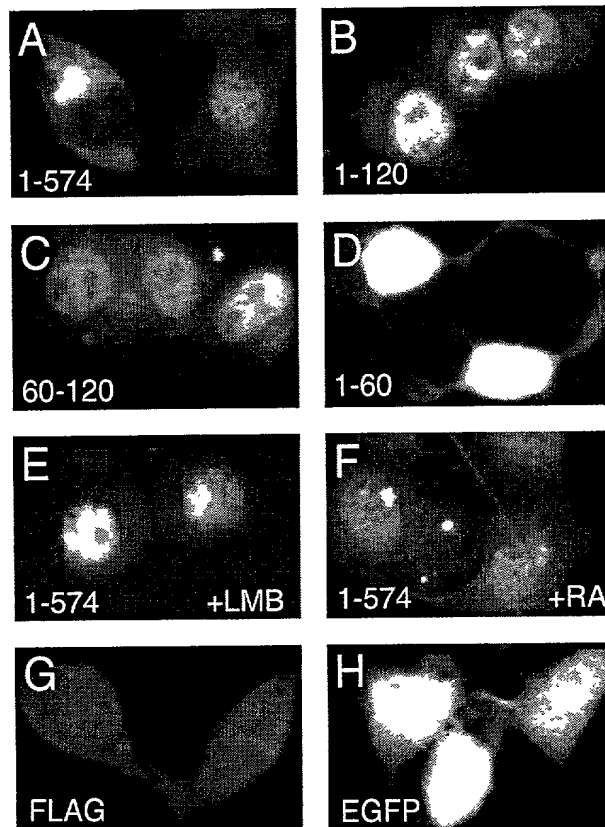


FIGURE 11

h1I FHPHTKGSQILMDLSHKAVKR-QASFCNAITFSNRPVLIYEQVRLKITKKQCCWSGALRL
 h2I FHAQAKGKNVRLDGHSSRRATR-RNSFCNGVITETORPIRLYEQVRLRLVAVRPGWSGALRF
 h3 FHAEAKGAQVRLDTRGCTIAHR-RTTFHDGIVFSORPVRLGERVALRVLREESGWCGGLRV
 dI FHS-VHGDNIRISRDGTIARR-FESFCRAITFSARPVRINERICVKFAEISNNWNGGIRF
 dII FHNTK-GRNVRLSQDRFVASRTESEDFCQGYVETARPRIERGEKLIQVQLKTEQMYVGALAL
 h2II FHATR-GPDVSLSADRKVACAPRPDGGRTLVESERPRLRPGESLFEVEVGRPGLAAPGALAF
 h1II FHALRAGAHVRILDEQTVARVEHGRDERALVETSRPVRVAETIEVKVTRSGGARPGALSF

h1I GETSKDPSRIHPDSLPHYACPDLVSSQSGFWAKAL-PEEFANEENIIFWVDKKGRVFHRI
 h2I GETAHDPSLMSAQDIPKYACPDLVTRPGYWAKAL-PENLALRDTVLAYWADRHGRVFYSV
 h3 GETRLDPACVSVPSLPPFLCPDLEEQSPTWAAVL-PEGCALTGDLVRFWVDRREGCLFAKV
 dI GETSNBPVTLEG-TLPKYACPDLTNRPGFWAKAL-HEQYCEKDNILYYYVNGAGDVIYGI
 dII GITSCNPAMLQP-NDLPNDSDFLLDRPEYWVVS KDIAAAPQRGDEIAFFVAPNGEVSISK
 h2II GITSCDPGVLRP-NELPADPDALLDRKEYWVVAR-AGPVPSGGDALSTLRLPGGDVLLGI
 h1II GVTTCPPGTLRP-ADLPFSPEALVDRKEFWAVCR-VPGPLHSGDILGLVNVNADGELHLSH

h1I NDSAVMLFFSGVVRTADPLWALVDVYG-LTRGVQLL
 h2I NDGEPVLFHCGVAVGGPLWALIDVYG-ITDEVQLL
 h3 NAGCRLLLREGVPVGAPLWAVMDVYG-TTKAIELL
 dI NNEEKGVILTGTIDTRSLLWTVIDIYG-NCTGIEFL
 dII NNGPAVVVMH-VDQSLQLWAFLDVYG-STQSLRMF
 h2II NGRPRGRLLC-VDTTQALWAFFAVRGGVAGQLRLL
 h1II NGAAAGMQLC-VDASQPLWMLLEGLHG-TITQIRIL

FIGURE 12

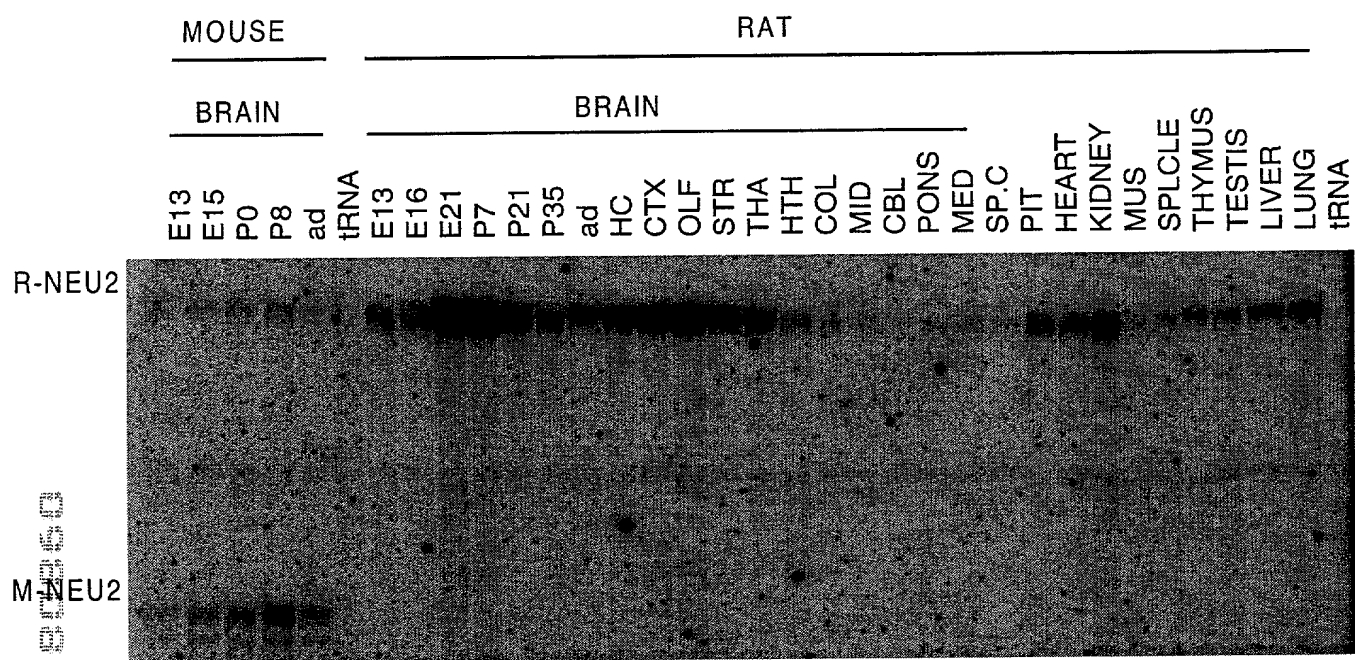
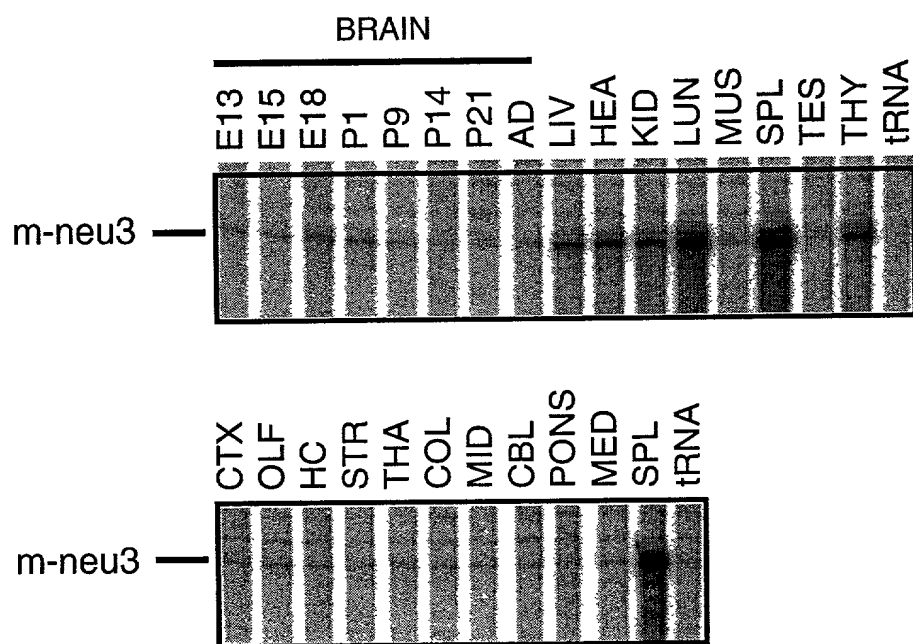


FIGURE 13

FIGURE 14



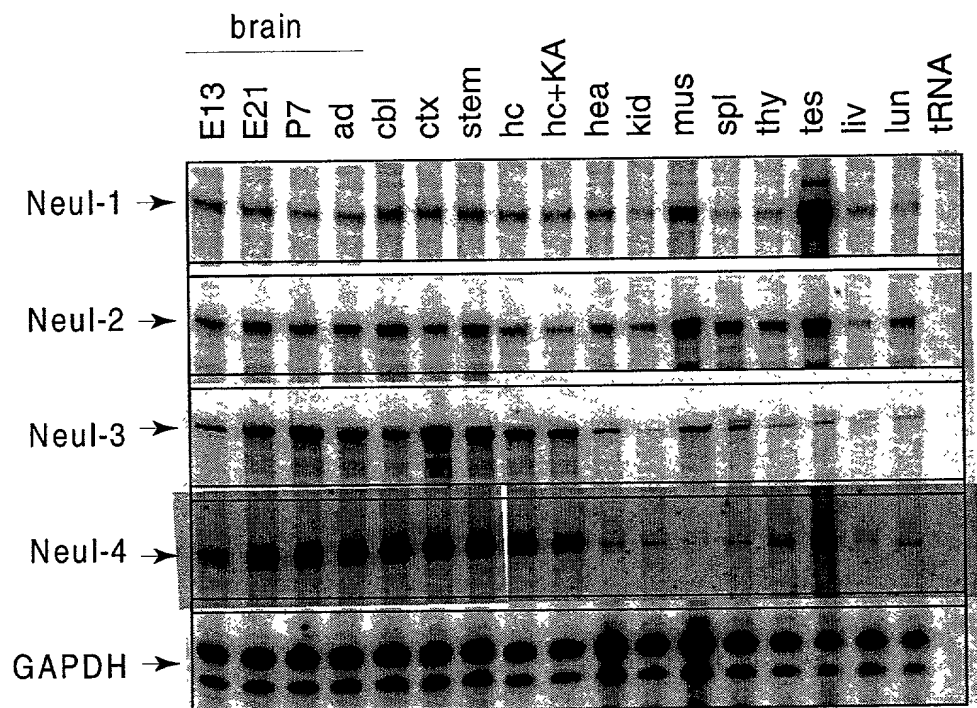


FIGURE 15